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The Author

Luke the Greek Physician

STUDIES IN HIS CHARACTER AND WORK

PARTS II-VI

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LUKE THE GREEK PHYSICIAN

PART II

A STUDY OF THE EFFECT OF CONTACT BETWEEN GREEK SCIENCE AND CHRISTIAN FAITH IN A HUMAN MIND *

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In the course of a paper¹ read by me before this club in March, 1908, an attempt was made to weigh and estimate some of the intellectual endowments and mental qualities which are credited to Luke the Physician by critics and commentators, or which are obvious in his work, it being expressly stated therein that the claim of inspired utterance made for his writings would be disallowed—and for present purposes the same rule will apply.

In following out the present intention acknowledgment must be made to an essay² coming from a clerical source in which the phenomena of mind manifested by Luke are considered and searchingly discussed; and it may be said with truth, probably, that in no other historic personage was a more interesting field presented for the impact and counter-play of the forces known as natural science and religious faith than

* Read before the St. Louis Medical History Club, 1909.

1. Luke the Physician (Harnack), with Remarks on the Literary, Dramatic and Medical Quality of the third Gospel and the Acts. By George Homan, M.D., St. Louis. The *Æsculapian*, December, 1908, Vol. i, No. 1. Brooklyn, N. Y. MCMIX.

2. Luke the Physician and Ancient Medicine. By the Rev. John Naylor, Manchester, England. The *Hibbert Journal*, October, 1909, viii, No. 1.

in that of the highly trained and accomplished Greek physician under consideration, who, it appears, was the first of his kind in this form of experience in the era in which we are now living.

It may be said as a foreword in entering on this study—a task which may well attract the best philosophical minds among living men—that a consciousness is felt by the writer of his lack of entire fitness to carry out this inquiry in the many directions which beckon to the student of mental science in all its natural unfoldings and actions; and, if it seems that an attempt is being made to set hard and fast metes and bounds to different phases and faculties of mind it should be understood as of merely tentative design, and intended only to bring out into clearer view those distinctions which a careful discrimination may perhaps enjoin. As all of these faculties have their source in the same cerebral soil naturally they cannot be alien to each other, nor be strictly set apart one from the other in considering their normal influence on the words and actions of the individual man.

The scene, then, which comes into view for study was afforded by one of a race of men who, in their time and as a people, were without a peer in mental capacity and grasp, and in the degree of intellectual depth, breadth and culture attained by them in the course of their national life.

The mind of Luke, therefore, may be taken as an example of the best that Greece could offer; and, presumably, it must have been brought under classical training and discipline during its early and susceptible years. This educational phase was followed by the severely scientific courses in medicine taught in the schools of

Hippocrates, and thus an arena was formed where, later, two principles were destined to confront each other—one, that of science directed by reason and intellect—the other, pious faith ministered to by emotion and imagination.

In the essay before mentioned Naylor sketches the beginnings of Greek medicine, and alludes to the facilities for instruction in that branch of knowledge down to the age of Luke (p. 34), as follows:

“Genuine medical science in Greek lands began long before the age of Pericles in the temples around the Aegean, where patients were treated by the Asclepiadae, devotees of Asclepius, the god of healing, who seem to have been a branch of an original priesthood, differentiated from it by a separate function. . . . Hereditary transmission of office and the habit of inscribing records of cures on votive tablets helped on the accumulation of empirical knowledge until in the fifth century B. C. a fairly large body of such knowledge was in the possession of some families of Asclepiadae. One of the sons of such a family was Hippocrates, the presiding genius of the sanatorium at Cos. Here he studied in the fashion of our English Sydenham, noting down all manner of symptoms and slowly broadening precedents. Here he wrote the books which are justly regarded as the fountain-head of medical literature, and here he founded the renowned School of Cos, which radiated its influence in doctrine and practice for centuries through all the centers of Greek medical learning, and shone supreme until Alexandria eclipsed it by still greater fame. . . . The books which Hippocrates himself wrote—some six or seven in number—became the nucleus of a mass of literature from the pens of his followers. This took his name as naturally and readily as Proverbs and Ecclesiastes took the name of Solomon.”

This writer says that the best-known schools of medicine in rough order of time appear to have been Crotona, Rhodes, Cos, Cnidus, Pergamus, Cyrene, Miletus, Ephesus, Alexandria,

Smyrna and Tarsus, and goes on to mention the divergences of medical opinion which resulted in the formation of sects, such as the Dogmatists, Empiricists, Methodics, Pneumatics, Eclectics, etc. He names Herophilus and Erasistratus at Alexandria as two of the foremost anatomists of the ancient world engaged in vivisection, and remarks that it was probably "near to the Serapeum, or temple of Serapis, which was the chief hospital standing on the western side of the city, that the mysteries of the sensory and motor nerves were first partially cleared up by these two men." Continuing (p. 37), he says:

"Summing up and gathering into one view what we know of the above schools, we may say that around the Mediterranean seaboard, in all the chief cities under Grecian influence, from the time of Hippocrates to the last days of Luke, the teaching of scientific medicine was making itself felt. Physicians occupied in some places the position of officers of public health, paid out of public funds. Before appointment they had to state the name of their teachers and their own qualifications. Men . . . found their way sometimes to the best appointments in the Sanatoria, or gained public lectureships in the universities of Athens and Alexandria."

On page 38 occurs the following:

"It is a common feature of all the above-named schools that they followed the true scientific method of observation, experiment, and theory subjected to tests for verification. . . . They sought to establish the reign of law in the relations between bodily and mental ailments and natural causes. Outside these schools everybody believed in supernatural demoniac powers. . . . In striking opposition to this, Greek medicine sought, from Hippocrates downwards, to find the causes of disease and death in the tissues and humors of the body, and in the influence of foods and physical environment. Its view of mental disorders was similar to its views of bodily ones. Perhaps the greatest work of Hippocrates was his attempt to explain various kinds of

madness as due to natural causes — physiological and climatic. . . . Thus does Hippocrates attack the superstitions of his time. Although he probably knew Socrates and was acquainted with that philosopher's belief in his demon, he would not allow demoniac agencies to be classed as the causes of disease."

Such, therefore, in reasonable conjecture was the scientific basis on which Luke builded as a physician, and that he was well-grounded in this domain of knowledge is conceded by Ramsay, Hawkins, Hobart, Harnack, and others, who recognize him as the source of the third³ gospel and the Acts.

In order to show Luke's skill and correctness in the use of medical words and terms, Naylor reviews many of the stories of healing, and bears witness to the suggestive and technical accuracy with which he employs them; and this extends even to inanimate things, as for example, the undergirding of the ship that went ashore in the storm on the Malta coast was described in language which suggests a giant with broken ribs, whose fractures were being bandaged in an accident ward—the word for ropes being almost an ambulance term for bandages. An interesting suggestion in relation to the illness of the father of Publius, reported as having been healed by Paul, is that instead of being gastric or typhoid fever it was really an ancient diagnosis of what is now known as Malta fever, of an undulant type, the germ of which, as has recently been proved, is communicated to human beings through the milk of the goats of that island.

Well-equipped in his profession as Luke certainly was, he must yet have kept an open mind,

3. It seems clear that Luke's gospel was second in order of production. It is spoken of as third because it so appears as printed in the New Testament.

eager for all that was new in his calling, responsive to humane promptings; and, when tales of marvelous cures, wrought in nearby lands, reached his ears he must have felt strongly moved to see for himself such striking manifestations in the healing profession. True, this is an assumption but consistent with probabilities, for no trustworthy data remain to show the motive, place, or occasion for the first meeting of Greek medicine with Christian religion, as represented in the persons of Luke and Jesus—if such actually occurred—an event unique and momentous of its kind in that the highest Greek intelligence confronted a form of religious doctrine which was to become of world-wide extent, and which was in many points clearly contrary to Greek conceptions.

With the two principles mentioned weighing within him, as they faced each other in the arena of mind and conscience, and with the likelihood that then, if ever, began the tempest to his soul, the chief figure in this dramatic picture is thus presented by Naylor (p. 40) :

“Turning now to Luke either as student, possibly at Tarsus, or young practitioner. . . . at Antioch, or more probably as family doctor of Lydia at Phillippi for six years—during which he might now and then be called to the camp to tend a Roman soldier and maybe the Praetor himself—or giving his services to all the sick folk at Malta, or settling down to practice in Rome and finally at Ephesus, we ask what his opinions were as to the causes and cures of bodily and mental afflictions. The question is interesting and significant if he was, as is assumed, a trained physician and a Greek—probably the only one in the Christian church in his time. And the answer is not difficult; for when we look into his gospel and Acts we find his general attitude clearly set forth. His medical opinions were evidently widely different from those of the Greek schools, and his particular view of demoniac possession quite opposite. . . . We con-

clude, therefore, that Luke as a Christian physician stood both against the spirit and teaching of Greek medicine from Hippocrates down to his own day."

Here, then, the issue is sharply defined, the crucial point is reached — for if the foregoing be true, Luke was an apostate to teachings which during the ages had been shaped by many men of commanding intellect through medical observations, experiences, experiments and tests, infinite in number, into a science resting assuredly on the rock of truth.

To either deny or affirm understandingly the verity of this accusation is scarcely possible, because of lack of wide facts in the case; for, as the presentment stands, hardly more than inferences, such perhaps as reason may approve, may be offered—in brief, conditional provisos rather than definite findings.

In my former paper this difficulty with respect to Luke was glanced at and comment made as follows:

"His passion as a physician was for the cure of sick and distressed humanity, having been drawn professionally to embrace the new faith by manifestations of healing power in one greater than himself, and as a zealous disciple he thus justified and declared his profession.

But it is to be remarked that *he nowhere claims for himself the possession of miraculous powers or intimates their exercise by him*; it is only as a possible onlooker, or as scribe or chronicler, that note was taken of cures wrought in disregard of all physical laws as now known or understood in medical doctrine — a possible compromise between the science of the physician and the faith of the disciple."

Further study has not changed the opinion above expressed, although it will be admitted that on the surface of his gospel and the Acts the contrary view finds support. Luke's position with reference to the apostolic group who toured the

Levant in divers journeyings is not made altogether clear, but it would seem that, by reason of his gift of letters and high order of mentality, he was chief in counsel and direction, in charge of the chronicles or records of the company, besides holding the post of master physician. Of cultured apt intelligence and noble imagination, his genius showed itself in less obtrusive manner than did the actions of the men of coarser grain and ruder fiber who were his companions. And, it is repeated, he nowhere gives proof that, personally or professionally, he yielded his footing on scientific ground; although, no doubt, through tactfulness and good policy he often bent to the gusts and waves of religious sentiment and psychic emotion which surged around him when reputed miracles were being enacted.

In commenting on what he speaks of as the singularity of Luke, Naylor says:

“The suggestion is here offered that the best explanation open to us is that the scientific influence of Greek medicine upon Luke’s mind was overborne by that of Paul and by his experiences in the Jewish-Christian atmosphere in which he certainly lived from the time of meeting Paul at Troas, if not from an earlier period of connection with the church at Antioch. That both Jews and Christians believed in demons is patent. Paul had no doubts about them.”

Other similar points are raised, but nevertheless, Luke, as a writer of memoirs, spoke almost impersonally and without self-commitment respecting the verity of miraculous healings—and this is the saving grace of a rather clouded situation. There are incidents caught into the narrative of the Acts so inapt in conception and style as to suggest piece-work, and such as would argue against Luke’s responsibility therefor. An example is the story of Sceva and his sons, which

corresponds with what would be looked on to-day as a mere brawl prompted by the spirit of wine, rather than any other spirit, and affording a chance for an ungracious thrust at disbelieving Jews—the whole account showing bias and spleen. Luke's native sense of good taste as a Greek, if not his religious forbearance, would have guarded him against such an unlovely fault.

An interesting sentence from the closing paragraph of the paper of Mr. Naylor is as follows: "Some day we may know how a Greek physician came to write the story of Bethlehem"—but by what means this knowledge is to be gained is not hinted at. Whether by growth of the power of analysis and critical insight a new light will be afforded from the original text, or by records and documents as yet unknown, does not appear.

The use of the word supernatural, in the sense of miraculous, implies a paradox, for the reason that whatever falls within the ken of a single human mind by that fact at once becomes natural, although it may be unique and known only to the person whose brain received the suggestion or conceived the thought; and the possessor may choose either to pass it on to the world to become a part of the common stock of knowledge, or he may for the purposes of personal pomp, power, privilege or profit seek to cloak the special perception with mysteries or solemnities and thus, perhaps, impose on the hopes, fears, credulity or weaknesses of his fellowmen.

Therefore, nothing that is sensed by sane human discernment can be supernatural, for the physics of the brain—circulation, nutrition, co-ordination, etc.—must actuate before the psychics of intelligence—thought, sensibilities, emotions, etc.—can find any expression whatever.

It is scarcely believable that a man of Luke's balanced genius and poise of mind could have consented to any course that was other than honest toward himself, as a physician, personally and professionally, and being thus true he could not be otherwise to the world. But it has chanced that the religious cause to which he lent the powers of a remarkable imagination has had the effect of eclipsing somewhat the faculties of intellect—judgment, reason, common sense, etc.—that came directly into action in his medical work.

A man—no more, no less—the ascription to him of saintship can add nothing to the distinction conferred by intellectual integrity as a physician, and imaginative insight as an apostle. In the rôle last named he gave body to the visions, and voice to the hopes and romances of the new religion in song, story, and drama with a clearness, cogency and charm that from the beginning must have had a powerful effect on the feelings and emotions of those addressed, and which, no doubt, often proved the final factor in gaining a hearing and winning acceptance for Christian belief throughout the world.

He served well two masters whose missions were in purpose much the same, and builded his life-work in symmetry on the rock of science as well as the rock of faith.

The elements of his success were two-fold, namely, the constancy with which he struck the note of human sympathy and common brotherhood in his concern and care as a physician for the sick and distressed in body or mind, and the crowning appeal to the sentiments and feelings of womanhood and child-nature in the tale of the nativity at Bethlehem.

The distinction having fallen to Luke of stressing these twin keynotes, as minstrel of good tidings of great joy, it then became of small consequence who might come afterward to fashion the tenets, write the rules, frame the dogmas or starve the doctrines of Christianity, as it is known in present time.

It was a law of the ancient Greek mind to seek the golden mean in things intellectual, especially on scientific lines, and accordingly the suggestion is ventured that the mentality of Luke was still governed by this ingrained law, and that he borrowed from the Christian faith the element of psychic healing-power to the extent that his reason and judgment approved, and in which the medical science of Hippocrates was obviously lacking.

This would have been strictly in line with the natural development of scientific medicine, but its normal course was thwarted and overflowed during many later centuries by ecclesiastical and popular superstitions—the influences of priestcraft, pietism, puritanism and the like, with their ready acceptance of witchcraft, occultism, magic, diabolism, etc., tending to confuse and confound psychical powers in healing with those that were in their nature physically impossible; and in illustration of this the cases of the madman of Gadara, and the man at the Beautiful gate “lame from his mother’s womb,” are instanced.

The failure to draw a line of sane demarkation between such conditions and phenomena, and which Luke as a physician probably perceived, has had the effect of seriously hindering progress in this branch of knowledge, and only within recent times has its full importance been realized.

It is held by some writers of history that the course of human progress in mental development and knowledge takes the form of a rising spiral, and that at times humanity can look over its pathway, trace its own past course, and take note of its advancement from age to age.

Therefore, may it not be true that in psychologic medicine this turn or stage has been reached, and promises that failed of fulfilment centuries ago, reappear as problems for study and solution by the medical profession to-day? In support of this view may be cited the extreme vagaries of Christian science, wrongly so-called, and what is termed the Immanuel movement, which, rightly understood in spirit, invites discriminating judgment and inquiry from physicians respecting its validity and aims.

It is, perhaps, safe to say that no other man in his time was so well fitted as Luke to judge rightly in questions involving both science and faith; and this ability sprung from the nature of his vivid and varied Greek mentality. It is equally safe to say, probably, that not once in a century does such a combination of rare intellect and imagination appear as was presented to the world in the theater of his different activities. And the science of medicine to-day has cause to regret that the genius of Luke in the rôle of physician is not equally as well known as are his gifts in the sphere and dominion of religious faith.

PART III

HIS PLACE IN MEDICINE WITH REMARKS ON FAITH-HEALING, REPUTED MEDICAL MIRACLES AND LIKE PHENOMENA *

On two occasions I have brought before this club certain views touching different phases of the life and work of this Greek physician, whose influence in the double realm of intellect and imagination has, perhaps, seldom been equaled in the records of our race. In one of these papers the evidence brought forward by the authorities to show that Luke was a Greek, and a trained physician, was sketched, and the works of his imagination which have made his name immortal were also mentioned. The second paper dealt with that period in his life when Greek science and Christian faith confronted each other in the arena of his medical mind and conscience, possibly as antagonistic influences, and it would appear were brought into agreement by him on grounds that were entirely natural and rational.

The present attempt will be to show that Luke must be ranked as one of the choicest medical minds known to any age, although this assumed fact has been beclouded by the church in estimating the value of his work as an apostle of the Christian religion. In short, it is felt that the time has come when physicians should take steps to reclaim Luke as one of their own in the name of that profession of which it is believed he was one of the greatest ornaments; for in science, intellect and work he appears to have

* Read before the St. Louis Medical History Club, 1910.

been graven in the likeness of the best that was produced in the Golden Age of Greece.

The present purpose, therefore, is to deal with the work of Luke's intellect on medical lines in so far as it is possible to trace and separate such results from the influence of related faculties or associated traits, and the difficulties that beset such an undertaking are indeed serious when the known yield of his imagination so much exceeds that which is in evidence touching his medical knowledge and professional skill.

In such a situation it may be permissible to have recourse, to a certain extent, to inferential methods such as are countenanced by scientists engaged in antiquarian research, for example, dead forms of speech or fossil animal remains, the key to the text of lost literature and language being sometimes found which unlocks the secret of their formation and thus enables logical conclusions to be drawn respecting linguistic origins, peculiarities, etc. Or, with respect to extinct animal types unearthed from prehistoric drift, the expert is often able by means of a bone or tooth to read from it the law of structure and function, and to build in approximate physical proportions animal shapes that may have antedated man's appearance on the earth by hundreds if not thousands of centuries.

If, then, such methods may be sanctioned with respect to past philologic or zoölogic eras, somewhat similar steps may be warranted in the task of bringing to light the facts of medical science and literature that have been buried by the pious loess and ecclesiastical siltings of upwards of two thousand years, for only fragments here and there remain which bespeak the medical side of Luke as shown during his lifetime. An attempt

will also be made to trace the law governing the Greek mentality in its dealing with medical problems and affairs.

Before entering on these lines of inquiry it may not be amiss to say a few words bearing on the relation of Luke to early Christianity, and his work in shaping and establishing that form of faith. It is well known that through many centuries of training and discipline the Greek intelligence had gained a contour and proportion all its own and recognizable as such to this day—capacity, comprehension, conception, creativeness, culture, courage, clarity, cogency, in harmonious order, were all characteristic of the Greek mind, and to this endowment Luke was born, and to these qualities he became legitimate heir.

The training of Luke in Hippocratic medicine was doubtless thorough and this fact had a vital relation to the work before him in a psychologic sense, as it is hoped will be brought out later on. The anatomist, physiologist, psychologist, in short, the rationalist, would say that the wonderful powers manifested by Luke were due to ancestral influence, prepotencies of mind strengthened from generation to generation, so that in the building of his brain certain cerebral centers, functions and traits were extraordinarily but symmetrically developed, thus giving special fitness and accounting for the works of intellection and imagination which so richly marked his course in life.

Being not disobedient unto his vision, either heavenly or earthly, he used with forceful effect the gifts that were thus naturally his own, and touched the deepest springs of feeling and action giving to the new religion a human appeal, a living power, anchoring it in the consciousness

of mankind in a way which the rather boisterous preachings of some of his co-workers, or even all of them, could never have brought about.

It is not unfair, perhaps, to say that of all the apostles of the early church, Luke, by reason of his birth and rearing, was most sanely minded, and of superior intellectual and ethical balance, while his clear vision and deep insight of human nature and motives enabled him to note shortcomings in the scheme of the new faith, as declared by others, and which his genius and skill alone were able in part to correct.

There is reason to doubt that the idea of virgin birth and much else implied in the story of Bethlehem was original with Luke, as a much older religion in the still more distant Orient had made the doctrine of divine incarnation a part of its creed and, with the zeal of its many apostles for missionary service, it is possible that Luke well knew this and, recognizing its value, made it a living accessory of the new faith in a flight of imagination the beauty and power of which, perhaps, was never before equaled. Lacking this supreme touch of the Greek physician it would seem as though the Christian religion could have reached a level no higher than Confucianism, a noble plea in behalf of the ethics of human conduct and brotherhood, it is true, but not a religion in the devotional sense and quite unacceptable to the occidental mind.

The strong Greek common sense, his keen worldly wisdom, his sympathy and sagacity in sensing human needs and cravings, enabled Luke to give to the new faith a going power, something for the primitive instinct of the race to lay hold of, and in that age and existing conditions only the Greek imagination, luminous and lofty, could

have given to the borrowed doctrine—if such it was—the noble and appealing form in which it is found in the writings of this great physician, and in his gospel only. Evidence in support of this is found in the fact that the older faith, which Christianity follows in a number of particulars, is still numerically the leading religion of the world and has been so for upwards of twenty-five centuries, deriving its devotional acceptance and popular strength mainly from the features given to Christianity by Luke, whether by adaptation from Buddhism or original conception cannot now be told. He taught, too, in an age of violence and blood, “On earth peace, good will toward men,” or, peace on earth to men of good will, but this teaching has been turned into mockery by nations that profess themselves Christian, in which form of hypocrisy our own government has been a wilful sinner. The nativity, as announced by Luke, is heartily celebrated as a yearly holiday by many who do not acknowledge his faith, while the dates of other related events are much less widely observed, and even then in a merely perfunctory way by many Christians.

Luke’s place in medicine would naturally be determined by his attitude toward faith-healing and the reputed medical miracles narrated in the Acts and gospels, and on which the new faith leaned as evidence of its divine origin—a posture of weakness rather than strength, as it would be likely to appear to a man of Luke’s scientific training and true perception of the laws of mind and matter, notably concerning the psychology of the crowd, and the emotional responses of the average human being. History tends to show that no form of pious faith, however well-con-

ceived, can be other than a handmaiden to humanity, following and serving but never leading. The ideas that forerun spiritual uplift are born where thought is most free, and this harmonizes with the orderly course of psychology. If this view is correct, that which is quite loosely called a miracle, and which takes the form of capricious interruption of the course of observed natural law, is an impossibility for the reason that in the economy of nature the adaptation of means to ends is perfect, waste of energy is unknown and there exists no demand for such outshowings, the normal working power of the normal human brain sufficing for all known needs.

Anatomy, physiology and psychology teach that, barring disease or injury, the evolution of the human brain proceeds from birth to death, the adult growth being a development of centers or areas controlling or ministering to the higher life, this being true of the race generally. The correctness of this is testified to by experiences of daily life in the ready recognition by us of phenomena in nature that would have been held miraculous not many years ago, as in the form of striking new discoveries and inventions. Herein civilized man has shown himself to be of kin to the child-mind of the aborigine who yet looks on the telegraph, phonograph, telephone, photograph, etc., with superstitious awe as the work of gods or demons.

It is held by physiologists who recognize in the functioning of the normal human brain the only medium of conscious contact between this world and the laws that rule the universe that for every idea or thought conceived the score is there registered in actual cellular change, and this is in

accord with what science would teach as, otherwise, memory could not be brought into existence.

A shot piercing the human brain may spare life and yet destroy the loftiest imaginative powers of the mind; another shot, taking another course, may not be fatal, yet annihilate the noblest intellectual faculties of man; while, too, localized disease or senile change may act slowly in the same way, so that herein past all cavil are the proofs that in certain definite cerebral areas, reason, religion, intelligence, sentiment, conscience, have their seats and that such centers or areas are dependent for structural integrity and proper working mainly on the quality and quantity of the blood-supply which reaches them; therefore, if miracles are wrought, here must be the theater for such manifestations, for here is the human power-house whose dynamos actuate every organ and function.

In my last paper a brief survey was made of the means for medical instruction in ancient Greece, and the demands made of those entering on such studies. Of these facilities it may again be said:

"That around the Mediterranean seaboard, in all the chief cities under Grecian influence, from the time of Hippocrates to the last days of Luke, the teaching of scientific medicine was making itself felt. It was a common feature in all the . . . schools that they followed the true scientific method of observation, experiment and theory subjected to tests for verification. They sought to establish the reign of law in the relations between bodily and mental ailments and natural causes. Outside these schools everybody believed in supernatural demoniac powers. In striking opposition to this Greek medicine sought, from Hippocrates downward, to find the causes of disease in the tissues and humors of the body, in the influence of food and physical environment. Its view of mental disorders was similar to its view of bodily ones."

As bearing pertinently on the above let the main features of the story telling of the conversion of Saul, the Jew, to Christianity be recalled, it being borne in mind that this was accounted a miracle of the first magnitude, and both the event and the subject were capitalized to the credit of the church to an extent that seems almost inordinate.

Abridged from the Acts it reads:

"The witnesses laid down their clothes at a young man's feet whose name was Saul and they stoned Stephen. And Saul was consenting unto his death. At that time there was great persecution against the church which was at Jerusalem; and they were all scattered abroad. . . . As for Saul, he made havoc of the church entering every house, and haling men and women committed them to prison. . . . And Saul, yet breathing out threatenings and slaughter against the disciples of the Lord, went unto the high priest, and desired of him letters to the synagogues, that if he found any of this way, whether they were men or women, he might bring them bound unto Jerusalem. And as he journeyed, he came near Damascus; and suddenly there shined round about him a light from heaven; and he fell to the earth. . . . And Saul arose from the earth; and when his eyes were opened, he saw no man: . . . and he was three days without sight."

Here is the outline portrait of a young man of unstable temperament and vindictive disposition falling under the sway of conceptions believed to be religious in nature, illustrating the genesis of a fanatic moved by passion, bigotry, prejudice, intolerance, so that there was small room for mercy, forbearance, judgment or magnanimity to come into play and who was able to persuade himself that his morbid designs and cruel deeds were in obedience to the will of his maker. His nature congenitally was cast in the mold of a persecutor for opinion's sake, and the leopard

did not change his spots on the way to Damascus; his activities were only directed into another channel. But who can doubt, if Roman law had permitted, that his persecution of the Jews and other disbelievers would have been as fierce as was that but recently directed by him against the early Christians?

The illusions of special sense and other symptoms mentioned in the account need no miracle for their explanation, as such phenomena fall under the observation of very many general practitioners and are recognized as being due to the operation of natural law. Indeed, if a miracle could be attached to this occurrence it would lie in the fact that Saul did not die on the spot with brain widely torn by a bursting blood-vessel. The raging fury that possessed him, aided perhaps by solar heat, excess or privation as to certain bodily habits or conditions, account for every symptom. If there was no temporary stoppage of the blood current in the cerebral area affected by thrombus or embolus, it is likely that there was a hyperemia or limited hemorrhage or serous effusion which was soon absorbed as, for three days, he "neither did eat or drink" and possibly no permanent damage resulted.

The accounts of the early days of Christianity come from sources biased in its favor and deeply concerned in its survival and growth, the powers of superhumanism were invoked to testify in its behalf, the fervor of its devotees in an age of superstition and extraordinary credulity regarded everything as possible; stories that would stagger belief in the ordinary person who accepted without question or criticism no matter how much reason and common sense might be outraged, the ruling idea being that such a course was to the

greater glory of the faith. Against this flood it is hardly possible that Luke and his works were able to stand entirely uninfluenced, and it is reasonable that doubt has been expressed that he really held fast to his scientific moorings under such tremendous pressure, but amid the drift and sediment of this turbid emotional and ecclesiastical overflow there still appear some signs of Luke as a medical man erect and unswerved from the principles of his early profession.

That which a man leaves undone may be of more significance and what he does not say may be more eloquent than if he gave free rein to deed and word, and while Luke as a chronicler, or others in his name, gave currency to much that only unreasoning credulity could accept, he himself so far as can be known in no place or time ever laid claim to or exercised in any degree what was asserted to be miraculous powers in human healing. In this attitude of abstention not only were the ingrained teachings of scientific medicine justified but characteristics of the sustained dignity of the Greek spirit were revealed which, briefly, were obedience to reason, the duty to seek out underlying causes, to refrain from haste in judgment, to interpret thought in clear forms, to give fitting expression to feelings and sympathies and the like, and to every one of these tests Luke rings true, so far as can now be known. With wise sufferance and administrative tact no doubt he chose not to see much that he was not prepared to approve, and it must have been his sorest trial to moderate and hold within bounds much that was done by his associates. Moreover, in some of the best work put forth in the name of another apostle there is the

mark of constructive skill and creative force that shows the Greek hand and intelligence.

As many volumes have been written on the subject of the reputed miraculous healings set out in the apostolic writings, only two of such occurrences, typical in kind, will be considered now, both of them having been pointed out on a former occasion; and it may be that this was one of the first instances in which the scientific psychology of the Greek school and healing by Christian faith were naturally and rationally wedded together.

In the serious slang of that age insane persons were spoken of as having devils, foul or unclean spirits, just as to-day inelegant expressions are used to signify similar opinions. The case referred to is that of the madman of Gadara, and the chief points will be brought together by condensing and merging the stories as told by Luke and Mark, as follows:

“And they arrived at the country of the Gadarenes, and when he went forth to land there met him out of the tombs a man with an unclean spirit, which had devils a long time, and wore no clothes, neither abode in any house, and no man could bind him, no, not with chains: because that he had often been bound, and the chains had been plucked asunder and the fetters broken by him. And night and day he was in the mountains, and in the tombs, crying, and cutting himself with stones. But when he saw Jesus afar off, he ran and worshipped him, and cried ‘I adjure thee by God, that thou torment me not.’”

The account continues and tells how after some parleying as to terms the “devils” betook themselves into a herd of swine, which stampeded over a cliff and were drowned, whilst the people were somewhat disturbed by the different events but, later, coming forward, they “found the man out

of whom the devils were departed, sitting at the feet of Jesus, clothed, and in his right mind."

It is unlikely that the insanity of this man was of a serious type at its beginning, his words and actions probably showed a departure from the normal which led to his being abused and tormented by his fellows with the result that his feelings were hardened into fierce resentment as he no longer saw a friendly face nor heard a single kindly spoken word. News of uncommon events travels fast, and much of what was said and done beyond Galilee no doubt had come to his ears, kindling in him the burning hope of deliverance from suffering, his adjuration against any more torment being freighted with clear and pathetic meaning. Nor was his hope in vain, for in the person of the Great Physician he found a friend—compassionate, responsive, benignant, inspiring veneration and implicit trustfulness in his harried nature while his expectancy of cure was keyed to the tensest pitch—a friend whose gracious sympathy toward the afflicted opened the psychic field to the powers of overruling suggestion so that at the ripe moment, when the healing word was spoken the response was instant; the cure was wrought and the man was again "in his right mind," which implies that there had been merely a suspension of normal functioning, a fault of proper gearing in the mental machinery concerned, rather than any organic disease.

When the human face flushes or pales because of emotion it is understood that the vascular change thus evidenced is actuated by centers seated in the brain which thus respond to sensory stimulus, external or otherwise; and, similarly, the blood-supply of brain areas may be changed

by such influences as is shown by sensations of dizziness, swooning, etc., so it would appear that the madman of Gadara suffered an inhibition from some cause unknown which rested on that area commonly called the seat of reason, such cause possibly being faulty circulation, poor nutrition, impaired coordination or autotoxic conditions. That a powerful external stimulus affecting the disturbed center was the proper treatment was proved by the outcome, the pathologic interdict being duly lifted. Similar results have been achieved many times by men who possess psychologic power in winning and magnetic form, the rule of reason, as applied to the laws of body and mind, being strictly followed, medically proved, and shown to be capable of yielding remarkable results.

The second example of what is called miraculous healing was of a different kind and the account which follows is summarized from the Acts:

"A certain man lame from his mother's womb was laid daily at the gate of the temple; who, seeing Peter and John about to go into the temple, asked an alms. Then Peter said, 'such as I have give I thee: In the name of Jesus Christ rise up and walk.' And he took him by the right hand and lifted him up; and immediately his feet and ankle bones received strength. And he, leaping up, stood, and walked and entered with them into the temple."

The reason for doubting the genuineness of this miracle rests on the facts of embryology, anatomy and physiology also being concerned. Dating back to fetal life there was a physical defect with absence of a motor function pointing to the non-existence or abortion of the appropriate center in the man's brain.

If the narrative did not state so positively that the lameness was prenatal it would be con-

ceivable that a functional paralysis of legs and feet was present and which a commanding suggestion from a source of power relieved, for a time at least. But if the brain of the unborn child lacked the foundations that should supply muscular strength and movement to the lower limbs, then to assert a miracle in such a case would be as hazardous to sound reason and scientific truth as would be the claim that a full-grown oak could spring from an acorn in the twinkling of an eye. A weak element, from a medical viewpoint, in instances of so-called miraculous healing is that the later history of its subjects is seldom known, that is whether they remain healed or relapse eventually into former conditions.

It was a heavy blow, indeed, to both religion and humanity when the early church, in dealing with mental alienation, turned from light to darkness, choosing the gloom of superstition and diabolism rather than the enlightenment of Greek medicine and psychology, and the cruel consequences of this mistake were felt through many darkened centuries in unspeakable barbarities visited on the insane, dungeon, hunger, lash and chains having been their merciless portion. In fact the forms of Christianity were many hundred years old when, in the eternal fitness of things it was ordained that the medical hand of a real follower¹ of the Great Physician, and of the Greek physician, should strike the shackles from the madman's limbs, and disorders of the

1. Phillippe Pinel, French physician, born at Saint André, Department of Tarn, April 20, 1745, died in Paris, Oct. 26, 1826. "He gained for himself undying fame by his reformation of the old barbarous methods of treating the insane." Although vigorous opposition was made to Pinel's philanthropic opinions he fortunately succeeded in thoroughly establishing their correctness, and his system in a few years prevailed over the whole of Europe.

brain were shown to be no more diabolical in origin than ailments of other parts of the body.

Is it not the first duty of every church, claiming such a mission, to endeavor to save the soul even before a child is born, by joining in work for just conditions of earthly living and human comfort which the great body of mankind has never yet known—the birthright of the child, as father to the man, being so watchfully guarded that the growing brain shall suffer no blight from any form of avoidable disease, casualty, destitution or cruelty; so that every region of that brain, designed by its architect as seats of intelligence, reason, justice, conscience, righteousness, shall not fail of normal growth and wholesome functioning! But as of old and since, in varied form, and under every sun, too often ecclesiasticism has been shown to be but a blind guide, prone to strain at gnats and swallow camels, neglecting the weightier matters of the law, judgment and mercy.

“The brother whose praise is . . . throughout all the churches”—such was the telling tribute paid to Luke by his fellows and which voiced his distinction as both physician and apostle. As before suggested, definite proofs showing his high scientific character are not within reach, having probably been forever lost in the confusion and darkness of the early church. But there do exist inferential circumstances which discerning physicians may perceive tending to show Luke as one of the worthiest figures in medicine that history can offer. This distinction lies in the fact that Hippocratic medicine, strictly taught on broad lines as it was, yet failed to take due account of the full power of mind over matter, as the demonstration of healing influences

had never before been witnessed in such supreme and convincing form as was seen during the lifetime of Jesus. Such instances as that of the madman of Gadara may have come to his knowledge and there can be little doubt that the trained intelligence and keen penetration of Luke enabled him to divine the dynamic modus of the cure, and that he saw the importance to scientific medicine of such legitimate psychologic aid, this recognition and action being thoroughly in keeping with the habit of the Greek mind. If all the facts could be known they would most likely point to him as the first great medical psychologist in the era which he did so much to introduce.

With the sublime and sympathetic diagnosis of human ills, their cause and cure, as made by the Great Physician, Luke the Physician was in full accord as he, of all the disciples and teachers, best divined the true spirit of the new faith and pointed the proper way, his work being vital to the form which it in part assumed; so that, in point of value of service to humanity and true religion — not mere theological doctrine — he stands easily first of all the apostles, a distinction due to natural powers of mind originally trained and devoted to the ministry of medicine for the healing uplift of his fellowmen. But his name and fame have been in the keeping of others than physicians, which is not to the credit of our profession, for his must have been one of the master minds of all time, and should accordingly be honored and venerated as one who stood as best he could a beacon light in the cause of scientific medicine: *Lux lucet tenebris*.

PART IV

HIS PLACE IN MEDICINE, WITH REMARKS ON FAITH-HEALING, REPUTED MEDICAL MIRA- CLES AND LIKE PHENOMENA

(CONCLUDED)

Although some demur is still made there seems to be no good reason for doubting the correctness of the statements made by those qualified to speak, that Luke, who is credited with the authorship of the gospel which bears his name and the Acts, was a physician well trained in the school of Hippocratic medicine, which had flourished for centuries before his time in Greece, its colonies and dependencies.

The testimony in support of this view is drawn from two sources: (1) The settled traditions of the early church supported as they are by direct statements contained in the apostolic writings, and (2) the technical and professional character of many of the terms and expressions in the gospel and Acts attributed to Luke, used in describing medical and surgical conditions and appearances, which are in scientific accord with the writings of the best medical authorities of that and earlier ages, and which style of expression is found nowhere else in the new testament. As the evidence thus afforded has been ably put forward by ecclesiastical writers no charge of bias toward a medical cause can be made, as might be the case if physicians only had defended Luke's claim, although support from skilled medical sources to this end has not been lacking.

Therefore this question may be considered as settled in the affirmative by weight of testimony, and the next step within the scope of this inquiry would be to ascertain the means and opportunities open to those seeking a Greek medical education some two thousand years ago. This phase has already been discussed and the opinions of Harnack and Naylor were freely quoted by me to show the scientific competency of such teachings, it being made clear by them that this schooling was in keeping with the thoroughness which characterized the work of the Greeks in this and every other intellectual direction.

It must be admitted, of course, that there is nothing at hand to show the place where Luke received this instruction, the time there spent, nor the extent of his studies, direct proofs being lacking as is the case with so many of the other personalities associated with him in the development of a religious cause in an epochal period of the world's history; but the conclusion of experts, drawn from a study of known facts, is that he was well-equipped scientifically for his professional labors.

In order to strengthen this reasonable conjecture it may be well briefly to notice the groundwork of Greek character and citizenship during the centuries preceding that time—economic, social, political and religious—in order to see whether inferential conclusions may safely be drawn from principles of national consciousness and conduct for application to specific or individual instances.

As bearing directly on and illuminating the conditions of Greek civilization I quote from Boeckh,¹ as follows:

1. Introduction to "Public Economy of Athens."

“Everything is subject to the intelligent spirit. This secured to the Athenians a high rank among the nations of the world’s history. It was this which enabled a small band to become victorious . . . at Marathon, Salamis and Plataea. . . . From the bloody seed sprung a race which the spirit of the dead inflamed to new intrepid deeds. Through the same energy of mind a small band of citizens, a single city acquired the dominion over thousands. . . . In infinite fulness and methodical variety the flower of art at the same time developed itself to enhance the pleasures and to refine the enjoyments of life; and the wise drew out of the deep fountains of their souls and of nature, eternal thoughts of God.”

Francis Galton has been quoted to the effect that “a population of ninety thousand produced two men, Socrates and Phidias, whom the whole population of Europe has never equaled, and fourteen men of an ability of which the Anglo-Saxon race has only produced, in two thousand years, five equals.”

The words of Pericles, spoken of the social and political features of the Athenian commonwealth more than five hundred years before Christianity was heard of, have never been successfully denied. And it should be remembered that underlying this civilization and a necessary part of it was a system of just taxation unknown elsewhere and deliberately disregarded to-day which allowed no private monopoly of public utilities or special privileges, each citizen receiving the full measure of his earnings in the line of work that best suited his taste and capacities. He said:

“We are happy in a form of government which . . . is original at Athens. And this our form, as committed not to the few, but to the whole body of the people, is called a democracy. How different soever in a private capacity, we all enjoy the same general equality our laws are fitted to preserve; and superior honors just as we excel. The public administration

. . . is attainable only by merit. Poverty is not a hindrance since whoever is able to serve his country, meets with no obstacle to preferment from his first obscurity."

The beginnings and growth of the national religion of the Hellenes were as striking as were the other characteristics of this remarkable race. As bearing on this point I quote the following:²

"Greek religion differed from the now existing religions of the world in its origin and development. It had no founder. Its sanction was not the ipse dixit of some inspired teacher. . . . It was a free . . . growth, evolved from the various hopes and fears of a whole people. . . . Great teachers indeed arose, like Orpheus, advocating special doctrines and imposing on their followers, special rules of life. Great centers of religious influence developed, such as Delphi, exercising a general control over rites and ceremonies. But no single preacher, no priesthood, succeeded in dominating over the free conscience of the people. Nothing was imposed by authority. In belief and in worship each man was a law unto himself; and so far as there were any accepted doctrines and established observances, these were not the subtle inventions of professional theologians or an interested priesthood, but were based upon the hereditary and innate convictions of the whole Greek race. The individual was free to believe what he would and what he could. (P. 2.)

"No people have evinced greater liberty of thought on religious matters; no people have been less hampered by hierarchical limitations and the claims of authority; nowhere else have the advocates of material philosophies and of spiritual philosophies been brought into sharper contrast and yet held in equal repute." (P. 527.)

Upon the bedrock of these eternal principles the Greek state was reared by the minds and hands of its citizens, as individuals, reaching to

2. Modern Greek Folklore and Ancient Greek Religion : John Cuthbert Layman, M.A., etc., Cambridge University Press, 1910.

a sovereignty of intellect and imagination which makes the thought of that age even now still fresh and true and sound; kindling a torch to which every nation has been compelled to turn, whose rays illumine the paths of all seekers after knowledge and truth to-day, and whose persistence into ages yet to come can hardly be doubted.

Such then being the moral, mental and religious heritage of Luke through many generations, the quality and breadth of his intelligence, taken in connection with his calling as a physician, fitted him to hear with sympathy and understanding the doctrine of the Galilean, and to become the best exponent of the new faith in its early and unperverted form; that which has been termed an unclouded clearness of mind enabling him to commend to the western mentality the oriental imageries, legends, romances and mysticisms of the elder religions out of which in the fulness of time Christianity naturally grew.

That the medical career of Luke does not stand out more clearly is due alike to the peculiarities of his own times and to the indisposition of the early church; and a demand from the latter source for proofs to establish his complete medical character hardly comes with good grace inasmuch as organized Christianity for many centuries showed but small interest in medical science, or, for that matter, any of the natural sciences. The details of Luke's professional work at Antioch, Tarsus, Phillippi, Malta, Rome or Ephesus, if recorded, were perhaps but lightly regarded by ecclesiastical authority as the church was struggling to establish itself as a state religion—later becoming intoxicated with the exercise of political power, and in the Dark Ages deeply

obsessed with the nightmare that the end of the world was near at hand. The practical effect of this situation was that the natural sciences found not only sanctuary but support and sympathy under the Crescent that was withheld from them by Christendom — Arabians, Persians, Saracens and Moors alike joining in this beneficence toward learning and literature; and scientific medicine in important directions owns gratefully its debt to Mohammedan favor and protection.*

It has been said on fair authority that the word "brain" does not occur within the lids of the Bible, and as the science of medicine must have its seat in that organ, if anywhere, the slight importance attached to rational medicine by most of the Christian apostles and advocates is easily understood. Religious sensibility chose by metonymy to locate pious emotions in the heart, liver, bowels, reins, etc., but never traced them to a cerebral source. Therefore, as the human brain is the only organ vouchsafed by the creator to the creature whereby such a relationship can in any degree be conceived of, is it not most fitting and necessary that those who feel themselves called on to declare the ways of God to man should first study that organ with the greatest care, as anatomists, physiologists, psychologists and pathologists—noting changes in substance, form, fiber and cell—and reading from it the real messages of man's maker as given from generation to generation, thus affording a sure groundwork for spiritual speculation and religious enthusiasm; in short achieve the wedding

* After the closure of the Hippocratic schools the first college for medical teaching in Europe was founded at Salerno, Italy, in the 11th century, through the efforts of enlightened Mohammedan and Jewish scholars.

of sound physics with sane psychics in an ecclesiastical sense!

The later critics seem to agree that the order in which the four books of gospels were written was Mark, Luke, Matthew, John, the Acts by Luke following his gospel. There is not the same agreement as to the time of the appearance of what are thought to be the writings of Luke, Harnack³ holding that the date should be about 50 A. D., while Pfleiderer thinks the time could not "fall earlier than the beginning of the second century." He further believes that the hand of another than the Greek physician used Luke's records of travel and other evangelistic material in the works which tradition attributes to Luke himself. This supposed compiler or editor is described by Professor Pfleiderer⁴ as

"a Gentile Christian of post-apostolic times, and probably a member of the Roman church, among whose archives he may have found the Lucan travel memoirs. He was, moreover, a man of literary culture, well acquainted with the writings of Josephus, and of remarkable literary talent, who understood admirably how to present . . . the beginnings of Christianity in a form which would not only appeal to Christians but was calculated to attract and convince the Greco-Roman world. His work does not, indeed, consist of history in the modern sense of the term, but of "truth and poetic imagination" . . . in accordance with the tastes and ideas of his time and with the way history was generally written at that period. And it is precisely this mixture of truth and imagination, . . . this sublimation of the reality into the ideal world of faith, that gives the Lucan writings the incomparable value which they have had for the Christianity of all ages, and which they still retain."

If the foregoing view of Luke and his work can be maintained it will tend to lift from his

3. Luke the Physician: 1907, p. 152.

4. Primitive Christianity: Vol. 11, p. 300.

memory the imputation of apostasy to Greek medical thought and teaching brought against him with some force from clerical sources; for the hand of the compiler, in obedience to the conceived needs of primitive Christianity, must have seriously misjudged the spirit and character of Luke when he placed him in the attitude of countenancing the superstitious obsessions and outstanding belief in demonism of Paul, Peter and others—whose sole use for Hippocratic doctrine was the hope thereby to buttress by asserted miraculous healings the claim to supernatural powers in the new faith—an accusation implying such moral contradictions in the scientific Greek character that it would seem that it must fall of its own weight as lacking in due support.

The gospel and Acts of Luke are set with gems whose brilliancy argues a genius of the first order, whose powers were exercised over a wide range of themes some of which are decidedly medical in nature although for reasons before stated the scientific quality of these showings has been ecclesiastically slighted or ignored. Many of the literary masterpieces of the faith are found in Luke alone, such as the event at Bethlehem, the prodigal son, the good Samaritan, the grateful leper, the legend of Emmaus, Dives and Lazarus, the woman of Samaria, and many others; and even when he borrows thought or theme the rule is that his touch both dignifies and adorns the story as thus newly told. Every one of his epics shows nobility of thought and lofty diction whether the theme be medical, dramatic, poetic, philosophic or other distinction as the case may be.

While his contemporaries in medical teaching or practice as Celsus, Dioscorides, Aretaeus, and

later, Galen, were fortunate in leaving to future ages writings which deal with the precepts and performance of their times, so far as known no such heritage was bequeathed to us by Luke; but the opinion may be hazarded that one who was so great in other fields and who was so well grounded in Hippocratic medicine could, had circumstances permitted, have shown no less ability in this respect. He wrought in medicine so well that he earned the title of the Beloved Physician, equally significant and touching, and the world generally has willingly conceded this to be his by right that no one may question.

His birthplace and early home, Antioch, Syria, seems, next to Jerusalem, to have been a storm center of the new religion, and the clashes of policy and conflicts of opinion there between some of his fellow apostles must have been spirited to say the least, although the account by Luke tones down all such occurrences as much as possible. It seems probable that Luke first came into medical touch there with some of the men who became prominent in the new cause. Later, when it was conceived that a call for missionary service had been heard from Macedonia, a company was formed of whom Paul was one and the mission duly undertaken, Luke joining the company afterward at Troas and continuing with it for some time.

It is said the modern dramatic stage had its beginning about that time and in the shadow of the church, and if this be true it may also be true that the miracle-plays of later times, which were closely connected with religious belief, date from the example set by this company of traveling evangelists. The dramatic instinct of Luke, always very strong in the Greek nature, may

have given to this tour just such a coloring, for in the narrative mention is made of many happenings sustaining this view. Events showing pathos, tragedy, sentiment, romance, melodrama or comedy in connection with meetings held in forums, temples, synagogues, market-places and upper chambers bear out this probability although the style of narration is cautious and discreet. The provincial touring experiences of Molière during the infancy of the French drama would seem to support the correctness of the suggestion herein made. Luke's tactful address and love of peace, which is not seldom evident, point to him as being the guiding influence in this undertaking, and such details of the tour as appear show skilful management in the assignment of rôles and arrangement of the work.

When from out of the mysterious east there came those devotional and doctrinal elements which, through the preaching of the Galilean, were to be combined in a religion broadly humane and exalted in spirit, and whose founder prophetic fervor declared should be called the Prince of Peace, the world had been prepared in a measure for its coming through many influences of diverse form. The wise attitude of imperial Rome in respecting every form of religion found within its borders was a factor of importance by placing all on the same plane under civil law, and the effect was to modify many previously existing religious asperities and prejudices. Even the high but narrow and self-centered conception of the deity as a stern lawgiver under Mosaic doctrine became, among the Jews themselves, so tempered and softened as to take on rather the form of fatherhood, and this view was quite familiar to the founder of what is known as Christianity.

Palestine under such a regime became a natural meeting place for the Greek religion with its broad tolerance and wise moderation, for the faith of Buddha as well with its equally broad merciful humanity and more potent appeal to purely human instincts and sympathies and, also, the compelling doctrines drawn from Egyptian religious belief. The soil was ready for the seed which in part took the form of peace on earth, good will toward men; and, some time after the tragedy that closed the human career of the sower, this message struck a responsive chord in the intellect and imagination of Luke the Physician, who gave it forth to the world in a form that can never be forgotten, however convenient it may be to some to have these teachings belittled or ignored; for it looks to-day as if an insane bloodlust fed by commercial greed and cloaked with pious deception possesses what is called the civilized world. The dogs of war are howling, as perhaps never before, in the capital of every nation that styles itself Christian, their hoarse cries calling for yearly budgets rising into the hundred million dollars for larger armies and more and bigger battle-ships, while conventional or officialized piety, claiming the right to use the names of the Galilean teacher and the Greek apostle, looks on this monstrous spectacle in silence extending sufferance if not sanction, so that it becomes difficult for the plain man to identify Christianity to-day with the religion of Jesus and Luke. That religion, if it is to stand at all, must stand four-square to all the world on the foundation stones of the golden rule, the eleventh commandment, the message of Bethlehem, and the Lord's prayer, all of these in their best form being found in Luke's gospel.

Many theologians of the church have argued at length and with much learning to show that Paul was a superior influence in the spread of the spirit of Christianity, while but little is said of Luke in this respect. The answers to two simple questions may perhaps serve to clear this situation, and show that of the two the Greek physician had the surer sense of human motives and the truer insight of human nature, the suggested queries being:

What would Christianity have been without Christmas?

Who but Luke was responsible for this feature of that religion?

An observation suggested by elemental human nature would be that while Paul, by pleas based on theological subtleties and doctrinal deductions, might gain the assent of one man, the simple beauty and power of the epic of Bethlehem by Luke would, in the same time, win the sympathies of scores of women and children by the appeal it made to the sensibilities through which religious feelings ever find expression, be the mothers of those children white, black, red, yellow or brown, the fundamentals of humanity being at all times and everywhere the same. That this assertion is true is shown by what took place in China through the extension into that country of the religion of Buddha, for, while many of the men of China held to the faith of Confucius, the women generally favored the other religion being drawn to it by the doctrine of the virgin birth of a supreme being in the form of a child, the appeal thus made to their sympathetic emotions being irresistible, and observers of Chinese character and customs say that this situation has existed since the early centuries of both religions.

The true causes of observed effects are not always open to the eye, and as tending to throw light on the comparative values of the religious rôles played by these two men a Hebrew legend will be instanced (1 Kings, XIX). In order that he might be taught a lesson in patience, and as well to show him that the real forces at work in the world are not those that produce the most noise or disturbance in nature, one of the old-time prophets received the command:

“Go forth and stand upon the Mount before the Lord.” And behold . . . and a great and strong wind rent the mountains, and brake in pieces the rocks . . . but the Lord was not in the wind; and after the wind an earthquake; but the Lord was not in the earthquake; and after the earthquake a fire; but the Lord was not in the fire; and after the fire a still small voice . . . and said, “What doest thou here?”

The voice and hand of Luke the Physician gave the message with which he was entrusted to the world with a greater charm, more of innocent pleasure and less of pain to mankind than probably any other known form of religious belief, and, in so doing he was, as ever, faithful alike to his Hippocratic oath and apostolic vow; but that the field of the world was hardly prepared for such a religion was foreshown in a measure by Luke's own words: A sower went forth to sow his seed and as he sowed some fell by the wayside and it was trodden down; and some fell upon a rock and as soon as it was sprung up it withered away because it lacked moisture; and some fell among thorns, and the thorns sprang up and choked it; and other fell on good ground and sprang up and bore fruit an hundredfold.

PART V

THE GALILEAN PROPHET—THE GREEK PHYSICIAN

In the first paper of this series the words of Professor Harnack¹ were quoted to the effect that in earlier times Greeks with religious interests were disposed to regard religion mainly under the category of healing and salvation, and this opinion accords with the tenor of Luke's attitude as disclosed in his gospel and the Acts. His chief concern was for the healing and well-being of humanity here in this world, thus following the example of the Great Physician. His works show little interest in the dialectics of religious dogma or the doctrinal disputations which too often have grievously distressed mankind through the teachings of his associate, Paul, the self-styled apostle to the gentile world.

The intellectual pedigree of this Greek physician, as before outlined, the climate of scientific and religious opinion in which he seems to have been reared, together with his medical acquirements, would reasonably lead to such a result, especially in view of the fact that the wide separation now seen between the ecclesiastical and medical professions did not exist in his time, for the brain power of the race had not advanced sufficiently to show itself generally in such results; hence, no hard and fast line can be drawn between his work as a medical practitioner and his service as a religious apostle.

The dignity, freedom and versatility of his intelligence and breadth of sympathy toward all things human, as disclosed in such records as

1. Luke the Physician, p. 176.

have come down to this age, invite comparison with the mental traits and moral tendencies of others who were also connected with the beginnings of Christianity. And such a consideration, if honestly given, must necessarily disregard much that has come to be esteemed orthodox in religion—the point of view being strictly medical concerning the conditions and circumstances in nature that produce human brains which differ so markedly in capacity, apprehension, perception and other qualities, and which may serve to mark their possessor as a leader in power among men. Such consideration obviously involves no questions of faith or pious belief but rather those of anatomy, psychology, physiology, pathology and many other related branches of established science and modern knowledge.

As in Luke was found the fittest exponent of the doctrines of the Galilean teacher through a mutually sympathetic and conditioning quality of brain, it may be not out of place to notice briefly the human character and capacities of the Great Physician in the light which the scriptural record by his best apostle throws upon the question.

According to the account by Luke, following the reputed birth at Bethlehem, the years of Jesus to the age of 12 were spent at Nazareth in Galilee, and show in brief a youth of inquiring mind, keenly alert mentally, even holding disputations in the temple with the priests, and exhibiting a favor toward the ancient Hebrew faith that was entirely natural, rational, racial and traditional. But, after reaching the age mentioned, nothing seems to be known of his history, until he reappears as a man 30 years of age, was baptized, and began a three-year period of healing and preach-

ing in Palestine and nearby parts of western Asia; all of this experience culminating in the crucifixion at Jerusalem under Roman civil law as provided in cases of religious heresy possibly, political treason and certain other offenses—this particular modus of punishment, so far as known, being in no wise different from the manner of its enforcement in other instances falling within the same category, and the event therefore is entitled to no special distinction on that account.

As before stated, history, both sacred and secular, is silent as to the place or places where these eighteen years of the most important formative period of human life were spent by the Galilean prophet, and, again, only inferences can be advanced, suggested as they are by certain internal scriptural evidence, but tradition, steadily pointing in certain directions, has tenaciously attached itself to the folklore of tribes inhabiting western and central Asia. This applies even to countries whose people are intensely Moslem in religious belief, and among whom no motive would reasonably exist for cherishing such a legend, as the mutual strong antagonism of Christian and Mohammedan doctrines is well known, and this fact entitles the story at least to respectful attention. In support of this view a well-known traveler² writing of Samarcand (capital of Asia 600 years ago) says:

“There is a legend that Jesus, with his father and mother, once came this way from Galilee, with a caravan of merchants, and stopped in Thibet for many years, where his father pursued his trade as a carpenter, and Jesus studied in a medresse with a Buddhist priest.”

2. Turkestan, The Heart of Asia: Wm. Eleroy Curtis, 1911, p. 326.

In support of such a possibility is the fact that the great thoroughfare between the Mediterranean basin and the far east starting from the lower Nile passed eastward through Suez, then northward along the shore of the Mediterranean sea into Samaria; then, turning eastward across Palestine, through the geological fault known as the plain of Esdraelon and the vale of Jezreel crossed the river Jordan just south of the sea of Galilee, thence continuing onward directly or by branches to Damascus, Palmyra, Nineveh, Bagdad, Babylon, Mesopotamia, Persia, Central Asia, etc. This was the principal caravan route of the world, over which passed countless armies in military movements and, as well, human travel and commercial traffic for scores of centuries, the point of present interest being that this remarkable highway was located but a few miles south of Nazareth, while one of its main branches, leading northward into Asia Minor, reaching Antioch, Tarsus, Ephesus, etc., passed directly through that town, thus putting it in close touch with the commercial, religious, political and educational life and movements of the entire world, as known at that time. The military importance alone of this beaten pathway of races and nations, since man first made his appearance there, is proved by the fact that its course across Samaria marks the locality where more human blood has been shed in battle than any other place on earth, the geology and topography of that country making it a strategic point of the first importance, and accounting for the bloody struggles that have continued there even into modern times. Many other features of this small but interesting land are described as a result of the survey expedition sent out by the Yale³ corporation a few years ago.

3. Palestine and Its Transformation: Prof. Elsworth Huntington, 1911.

In his book on China and the Chinese H. A. Giles says that the influence of Greek civilization, speech, art, etc., extended from Bactria, the most easterly Greek province in Asia and was markedly felt in China for centuries before the Christian era; and that there was a free interchange of ideas across the width of Asia cannot be doubted with the effect of liberalizing and broadening the religious conceptions of those of plastic mind who came in contact with the Confucian and Buddhist forms of faith, which had acquired their most attractive features some two thousand years ago. That the mind of the young Galilean was thus influenced and from these sources can hardly be doubted to judge from the broad catholicity and elevated sympathetic humanity that mark his teachings—so different from what would have followed the inculcation only of the severe and exclusive doctrines laid down by Hebrew theology.

The derivation of the golden rule from Chinese sources and its adaptation by Luke to western thought by the change to an affirmative form; the probable borrowing by him of the oriental legend touching the virgin birth of a savior (already a part of Buddhist faith) and, with his genius, clothing the idea in strikingly poetic and dramatic form; these two, together with the conception of the fatherhood of God and the consequent brotherhood of man, as foreshown from Hebrew sources and which probably dated back to an Egyptian origin, constituted the chief features of the new religion as declared by the Greek apostle in his gospel and the Acts.

The typical ecclesiastical mind, solidly holding to dogma and doctrine which the advances of knowledge and science have shown to be inadmissible in the light of to-day, has in places made

some unwilling concession, the teachers of medical branches in church institutions usually being the first to show such liberalized tendencies. For example, the professor of mental philosophy in the Jesuit college at Stonyhurst concedes that cerebral changes evidence acts of intellect and volition, and says further:⁴

“Intellect and not imagination apprehends the universal relations which form the framework of science. . . . When uncontrolled by reason, (imagination) may pervert and mislead the powers of judgment and may so confuse the reason that fiction is substituted for objective reality and brilliant poetic hypotheses are preferred to the prose of commonplace truth” (p. 170).

He concedes centers of muscular movement, sense perceptions, etc., and also the possible existence and demonstration of cerebral areas of moral, intellectual and other faculties or qualities in man.

Following the views thus expressed, the words of Professor Pfleiderer, found in the work named in the last paper, suggesting the manner in which elements of faith, often held to be essential parts of religion, come into existence, may be of interest. He says:

“Originally a legend becomes a parable, the parable is expanded into an allegory, and the allegory is finally transformed into a miracle-story” (p. 165).

And he says further:

“For all their extraordinary character they are nevertheless not, strictly speaking, miracles, for they have their sufficient cause in the psychical condition of the persons to whom they occur; they are effects of psychic forces, the tension of which discharges and relieves itself in them. They therefore fall under the

4. Psychology, Empirical and Rational: Michael Maher, S. J., 1900.

general category of the "enthusiastic" phenomena which characterize Christianity from the commencement, and which must be assumed to have been an important factor in the work of Jesus and the results produced by him" (p. 498).

In these words by two distinguished Christian ecclesiastics is a belated acknowledgment of the truth of Greek medicine and psychology as taught by Hippocrates and reflected by Luke the Physician, and which in effect has been denied or ignored for nearly two thousand years by spokesmen for the church, in almost every one of its many divisions. This truth is that soul, spirit, mind, intelligence, imagination, will, character, reason, religion, in time and in nature, are bot-tomed on and conditioned by the physical constitution and normal functioning of the human brain.

The failure of the church, as such, to hold the interest of many leaders in thought and works that are vital to man on social, economic and other lines, gives sharp point to the criticism that the world is outgrowing dogmas and doctrines dating back to a time when the human race was in its mental childhood, that unresting but unhasting movement is a law of the universe and fully applies to man in his intellectual and moral conditions; and that religious ideas expressed in the fancies, folklore and legends of primitive peoples do not suffice for the needs of to-day. An intelligent world now demands proof of cerebral growth in religion as in other human concepts and concerns, and this is a ground for hope; for the coming of the Galilean prophet and the Greek apostle in their time showed that old things were passing away, and the history of all religions proves that the same must occur again unless Christianity takes heed and becomes acceptable

to the sane reason and scientific righteousness of present times.

The two apostles, the matured growth and functioning of whose brains may be studied with most advantage by physicians, are Luke and Paul, as these men stood on a somewhat similar ecclesiastical and mental plane but differing widely in basic moral conceptions and scruples of conscience—these being due to racial, ancestral, educational and other factors that influenced the structural shaping and functional working of their cerebral organs.

This by some may be deemed a rash assertion, but the words of the cautious Stonyhurst professor justifies it, and its confirmation may be found in the study of the lives of modern men taken in connection with the revelations of the autopsy room. For, let it be conceived that the brains of these two men were laid before a body of expert anatomists, skilled psychologists, trained physiologists and able pathologists for conscientious study and it can hardly be denied that they could point to primary deviations in form, structure and growth that would go far to explain the divergences in intellectual operation attested in life by the witness of their respective words and deeds. In order to show that such deep-seated differences in character were present and manifested in life, an incomplete estimation of the two apostles will be cited, the author being Prof. A. Harnack,⁵ of whom another theologian (Sanday) says

“that he has not only all the German virtues in the highest degree, but he has others that are less distinctly German—a width and generosity of outlook, a freedom from pedantry, a sympathy and understanding for human weakness, that are all his own.”

5. *The Date of the Acts and the Synoptic Gospels*: G. P. Putnam's Sons, N. Y., 1911.

For convenience this expression of judgment is arranged in parallel form:

CRITICAL ESTIMATES OF LUKE AND PAUL

Luke

"To what extent he shared St. Paul's peculiar views can be learned only from his own works. The common assumption that a companion . . . must be pictured simply according to the Master is without any basis, and is doubly reprehensible in the case of a Gentile of no slight culture, who already, before his conversion to Christianity, was in touch with the synagogue. . . . When St. Luke wrote the ecclesiastical situation was very different from what it was at the time of the Apostolic Council and the Epistle to the Galatians" (p. 33).

(A fuller estimation of the character of Luke will be found in Harnack's "Luke the Physician" quoted in part in the first paper of this series.)

Paul

"He recognized the God-given privileges of the Jewish nation, and at the same time by his work as a missionary he abolished them. . . . St. Paul . . . had nothing tangible to depend upon except the force of his own progressive religious conceptions. His limitation lay in this, that he had not thought this conception out to the end, and accordingly held fast to an indefinite compromise with Jewish convictions; and that, instead of carrying on the fight along the whole line he on important points yielded to the Jew in the Jewish Christian—not from cowardice or insincerity, but because the Jew in himself was still too strong. . . . In his inward life he used himself up in the effort to mediate between the idea of freedom and universalism on the one hand and the ancient Jewish claim on the other; in his outward life he never succeeded either in making himself appear a consistent man, or in freeing himself from the reproach that he lived in a contradiction" (pp. 60, 63).

The word "contradiction" is a rather mild term to express the intricate, confusing and inconsistent theological doctrines and abstractions put forth by this apostle, whose desire seemed to be to try to face all ways at the same time, be all things to all men—in fact it would be difficult for the untrained eye to follow the sleight with which the tenets of the faith were handled by him. Aberrant mental workings suggesting perhaps conditions of abnormal anemia or hyperemia seem to have been not uncommon, with pronounced ecstasies and inconstant visions following the furious persecuting outbursts of his earlier years. In short, it may be soberly suggested, in view of such mental vagaries and eccentricities, that the founder of Christianity would in life have withheld assent from the doctrinal anomalies and misconceptions as thus presented and preached to the world.

The inherent and peculiar differences between primitive Hebrew religious thought and original Greek religious conception may be shown in brief by quotations from the Acts (VII and XVII) the first being taken from the supposed speech by Stephen before the council at Jerusalem when on trial for heresy and which immediately preceded his lynching, swift vengeance having followed his intemperate utterances; the other from the address written by Luke and put into the mouth of Paul as having been spoken on Mars hill at Athens:

Hebrew

"The voice of the Lord came unto him saying, I am the God of thy fathers, the God of Abraham, and the God of Isaac, and the God of Jacob. I have seen, I have seen the afflictions of my people . . . and have heard their groaning and am come down to deliver them. . . . This is he, that was in the church in the wilderness with the angel which spake to him in the Mount Sinai, and with our fathers, who received the lively oracles to give unto us. . . . Ye do always resist the Holy Ghost; as your fathers did so do ye. . . . Who have received the law by the deposition of angels, and have not kept it."

Greek

"God that made the world, and all things therein, seeing that he is Lord of heaven and earth, dwelleth not in temples made with hands; neither is worshipped with men's hands, as **though** he needed anything, seeing he giveth to all life, and breath, and all things; and hath made of one blood all nations of men for to dwell on all the face of the earth, and hath determined the times before appointed and the bounds of their habitation; that they should seek the Lord, if haply they might feel after him and find him, though he be not far from every one of us. For in him we live, and move, and have our being; as certain also of your own poets⁶ have said, For we also are his offspring. Forasmuch then as we are the offspring of God, we ought not to think that the God-head is like unto gold, or silver, or stone, graven by art and man's device. . . . Because he hath appointed a day, in which he will judge the world in righteousness."

6. The quotation is said to be from the Hymn to Zeus by Cleanthes the Greek poet who lived in Athens several centuries before the present era. The hymn is spoken of by critics as an "admirable union of religious feeling and philosophic thought," and its mention shows Luke's acquaintance with the best work of the classical Greek age.

The two brains imperfectly represented in the foregoing expressions were national types and must have differed individually in form and function in accordance with the influence of natural laws that govern and direct human development in all its phases. The one type of brain—high, narrow, restrained—represented in its age, pride of race, national isolation and theocratic doctrine in religion, intensified by centuries of time during which the fixed and ruling idea was that here was a people chosen by the creator of the universe for the enjoyment of special favors and exclusive blessings, hence any deviation by the individual from the standards of a creed so imperative and inflexible would mean a mental and moral struggle in which certain tracts and centers of the brain would be vitally involved, and the cerebral consequences of which could not always be foretold.

The other brain—balanced, rounded, spacious—represented the very opposites in spirit, race and religion; an organ evidencing the sustained and finished traits of Greek character and naturally fitted to extend generous hospitality to any form of faith or religion that could show a reason for its being.

When, during life, the supreme test was applied to these two organs through the preaching of Christianity, the effects observed were consistent with what medical psychology would in reason have foreseen; that is, in the case of Luke the amplitude of his knowledge of human nature and comprehensive quality of mind enabled him easily to apprehend and absorb all that there was in it of truth, and, with widened knowledge, make it a part of his own faith. To the Greek nature this was a logical step for which the

foundation principles of the race and the practice and precedents of many generations had paved the way.

But with regard to Paul — narrow in the religious training of the Pharisee, holding jealously to the theological tenets of Israel, harsh and prejudiced toward heretics and heathen — the effect was very different, and the experience following the shock suffered by him on the way to Damascus proved the organic incapacity of his brain to accommodate such alien impressions without severe mental wrenching and confusion. It is true that nature finally made partial adjustment in this respect, improvising functional capacity for the emotions or convictions newly experienced, but the downright infirmities and aberrations noted in his later life show that the stability of such provision fell short of what would have been present if development in this respect had been racial or hereditary, or if a structural beginning had been made early in life.

To the body of experts before suggested as being fitted to judge the evidences afforded by these organs must be committed all questions touching the particular centers or tracts concerned, and which would explain the phenomena presented by the individual during his lifetime; and, furthermore, the hope may be expressed that the credibility and value of such testimony will not be lost on theologians and religious teachers, for, too often, the attitude of ecclesiastical authority on vital questions has been as peculiar and uninspiring as that of a stylite zealot in olden times dwelling on top of a column to escape worldly defilement.

While giving due attention therefore to the scriptures of the human Bible, no less important are the scriptures of the human Brain—etched and written by the hand of nature and coming in a new and revised edition with each succeeding generation—by no means should these be neglected by those who would lead in spiritual perception and knowledge. Some of the bitterest struggles that have plagued the world have been waged between those who could not agree on the meaning of print and paper—surely the honest study of the brain, its power and promise, could lead to no such calamity, for in the boundless possibilities of brain growth lie sane moderation and soundness of knowledge.

Astronomers, working with the means and methods of science to-day, point to myriad systems of suns in the universe with their dependent spheres, some at distances so vast that even their light may require scores of years to reach us, and which, read by the spectroscope, shows them to be composed of elements and substances the same as are found in the earth. The magnitude of some of these distant suns completely dwarfs our solar center, while in relative importance our own world would seem little more than a spawl of creation, a clod in space. This knowledge has been gained within recent centuries and gives forceful denial to views long taught by scholastic theology touching the creation of this world, the genesis and nature of man, etc. These teachings, based on the vivid fancies and brilliant folklore of a numerically small and isolated fraction of the human race, recorded thousands of years ago, do not commend themselves to sober intelligence and reasoned truth to-day, which decline the thought

that the maker of such a universe should show gross favoritism toward a particular few of this world's creatures in concerns which, we would be made to believe, affect the eternal destinies of the whole human race. As shown by the older scriptures the Hebrew genius early developed remarkable powers of imagination, such as also marks the childhood of the individual, but the primitive records of other races are often equally as important, none of them being of other than natural origin, and all are to be taken for whatever may be their intrinsic worth in religion, science, philosophy, history and so forth as determined by the best knowledge of to-day. It follows, therefore, that the time must come when even theologians will put away childish things and live and move in the light and learning of modern thought.

This is already the attainment and attitude of that calling whose mission and work is to heal, and when the scepter of authority departs from the ecclesiastical Judah, as seems likely, it will pass naturally as a symbol of both science and faith to the medical profession, which in conscience, character and capacity will be found not unfitted to receive it, the title thereto being the evidence given of service rendered to humanity in its greatest need by those who are continually in closest and most sympathetic touch with the ills and infirmities of all men, thus fulfilling the spirit and message of the Galilean prophet and the Greek physician. The truth of the declaration before quoted to the effect that ancient Greek thought held healing and salvation to be the soul and substance of true religion will be realized, unless all signs fail,

by advancing enlightened medicine, the aim and purpose being to give here and now a better world to better people through services and works that must ever be rendered principally by medical hands and minds through avoidance and removal of causes of physical and personal ills, and the betterment of earthly conditions many of which now make for bodily as well as mental and moral degradation and ruin.

As the soul of Christian belief was derived from the Galilean prophet so the brain of that religion was found in the Greek physician showing forth its principles and scope in this life; "for medicine must more and more become the guide in the solving of social problems" (Jacobi) which also embrace those of religion, and the key to which is found in the gospel as written by Luke. He left no message in medicine or religion that has reached this age which echoes the personal note, and by so much has both science and faith been made poorer and this in consequence of his unobtrusive nature, which preferred in honor others rather than himself.⁷

Uncertain tradition says that Luke lived to be more than four score years of age in a state of celibacy, suffered crucifixion at Eloea in Peloponnesus near Achaia, and received final interment in the church of the apostles at Constantinople about 350 A. D. In whatever manner the end came to Luke it may be well believed that he met it with the same firm dignity and serene composure that marked the bearing of another great Greek of an earlier age who, when

7. "The modesty of great men which makes them certain that by their works they will be proven and makes them shun the loud proclamation to their own generation of the gifts that will have value for all time."

the hour for taking the hemlock had come, calmly spoke to those around him:

“A man of sense ought not to say . . . that the description . . . given of the soul and her mansions is exactly true. But I do say that, inasmuch as the soul is shown to be immortal, he may venture to think . . . that something of the kind is true. . . . Wherefore, I say, let a man be of good cheer about his soul, who having cast away the pleasures and ornaments of the body . . . has sought after the pleasures of knowledge; and has arrayed the soul, not in some foreign attire, but in her own proper jewels, temperance, and justice, and courage, and nobility, and truth—in these adorned she is ready to go on her journey . . . when her hour comes. Me, already the voice of fate calls. . . . Be of good cheer then . . . and say that you are burying my body only, and do with that whatever is usual, and what you think best.”

While in many intellectual traits Socrates and Luke differed widely, yet at bottom the Greek characteristics were the same in both, as in moral divination and spiritual prophesyings. The poetic gift of the Greek physician shows plainly in his work, and prophecy most true was spoken in words taken from one of the sublimest flights in his gospel:

“Whereby the dayspring from on high hath visited us, to give light to them that sit in darkness . . . and to guide our feet into the way of peace.”

More than eighteen hundred years have served to prove the truth of the forecast that this “dayspring” was only a visitor and came not as a dweller upon earth, for the law of tooth and claw, of fang and talon, though often denied or cloaked, is still in force in lands and among peoples where what is called Christianity in various forms is most loudly vaunted and proclaimed.

PART VI

THE BRAIN IN RELATION TO MEDICAL SCIENCE AND PIOUS FAITH

If it be granted at the outset that all observed human activities, in whatever domain or direction they may be exerted, have their seat and source within the skull of man, then a subject of surpassing interest presents itself to every student of nature, this problem being as to the manner in which the brain of mankind was framed, the primitive type from which it was evolved, the structural and functional variations due to the many different factors that have influenced its development since man's forbears first appeared on earth. The building of the brain, the shaping of its contour, the enlargement of its capacity, the refining of its quality, the increase of its powers, the definition of its faculties, the coordination of its functions must ever be questions of absorbing interest to every intelligent person whose thoughts turn toward the beginnings of matter and mind and who seeks to know more of the still unsettled questions of embryology, physiology, psychology and related branches of scientific knowledge.

The study and survey already given to the mentality of Luke the Physician have tended to establish as a fact that his brain at its best represented the choice fruitage of developmental law in nature, expressing itself in favoring circumstances through and by means of exceptional influences that were racial, ancestral, educational and environmental, and the result ultimately

was a quality of brain which could draw a line of sound distinction between science and faith, in short, one that sensed the truth that miracle and superstition as phenomena of religion would tend to disappear as cerebral development and mental breadth increased. It represented or reflected the progressive attitude and element of the age in which he lived, that being a time when differentiation between the concepts of priest and physician had not been generally or clearly drawn, the presumption on biological grounds being that cerebral accommodation for such a separation had not yet reached fruition and full development.

Pious faith is a synonym for religion which is defined as being:

“A belief binding the spiritual nature of man to a supernatural being on whom he is conscious that he is dependent; also, the practice that springs out of such relation, including the personal life and experience, the doctrine, the duties and the rites founded on it.”

As man can be conscious of nothing except through the medium of his brain so religious consciousness must acknowledge a cerebral seat or refuge as well as those forms that are social, scientific, political, etc., and the location of this seat is of interest and importance in this connection. As already suggested, the study of the brain had little if any place in the thought of writers of the holy books of different religions, for, although this inquiry was begun by medical men in the schools of Hippocrates, yet it has been only within recent centuries that the cleavage between ecclesiasticism and medicine became so marked as to enable the healing profession to

establish itself securely on scientific ground and press its researches independent of any restraint from pious sources, so that psychology as now understood is of rather modern birth.

It has been characteristic of all the principal religions which the world has known for their prophets and priests to rely on appeals to emotion and imagination rather than to reason and intelligence, and that this is true is not without significance and calls upon physiology and psychology for adequate explanation; for, if this be possible, it would be a long step toward the wedding of sound physics and sane psychics in an ecclesiastical sense and thus establish religion on its true foundation.

If for example our knowledge of cerebral function and locale has reached a degree of sureness so that within well defined parts of the normal brain it can be shown that certain mental powers have their seat—as reason, will, judgment, memory—then it would be quite rational to hold that other traits or faculties—as religious faith, conscience, morality—are equally well placed and accommodated in the brain. The general habit among all religious propagandists has been to ignore or deny the fact of such natural anatomical connection and psychologic relationship, and to soar in imagination to regions unknown to reason, whose sway, however, in every other respect is conceded to be supreme; so that if, instead of pointing to the sky as the place of hope and justification, they would through mastery of the laws of body and mind, recognize the brain as the sole medium of such impressions, a surer resting place for real piety would be afforded and one that would be in

harmony with the operation of mind and matter throughout visible nature.

The ground plan or starting point in the building of the human brain is found by biologists in the very lowest forms of animal life, and a development is traceable in unbroken sequence successively through higher organisms until the end crowns the work in the encephalon of civilized, sane, enlightened man. It is hardly necessary to mention to a medical assemblage the fact that a conspectus in miniature of this entire process is shown by the normal human fetus during its ten-month sojourn in the womb.

A large number of authorities of unimpeachable standing could be cited in support of the position indicated, but only one will now be quoted:

. . . "In going up the phylogenic . . . series, we find a gradual process of development headward, brainward, cerebrumward; or, more generally, we might say that in all organic evolution we find an increasing dominance of the higher over the lower, and of the highest over all. For example, in the lowest plane of either series we find first the different systems imperfectly or not at all differentiated. Then, as differentiation of these progress, we find an increased dominance of the highest system—the *nervous system*; then in the nervous system, the increasing dominance of its highest part—the *brain*; then in the brain the increasing dominance of its highest ganglion—the *cerebrum*; and, lastly, in the cerebrum the increasing dominance of its highest substance—the exterior gray matter—as shown by the increasing number and depth of the convolutions. . . . When evolution is transferred from the animal to the human plane, from the physiological to the psychical, from the involuntary and necessary to the voluntary and free, shall not the same law hold good? Yes! all social evolution, all culture, all education, whether of the race or the individual, must follow the same law. All psychical advance is . . . an increasing dominance of the higher over the lower

and of the highest over all; of the mind over the body, and in the mind of the higher faculties over the lower; and, finally, the subordination of the whole to the highest moral purpose." (p. 171.) . . . "Every mental state corresponds with a particular brain state, and every mental change with a brain change. We have, therefore, here, two series, physical and psychological, corresponding with each other, term for term. For every change in the one there is a corresponding change in the other, both in kind and amount. Now, is not this the test of the relation of cause and effect? It certainly is. Yes, there must be a causal relation here, even though we are not able to understand the nature of the causal nexus" (p. 337).¹

At what precise stage in his upward course man reached the point when moral or spiritual elements first dawned and declared themselves and which by their presence would argue a notable physical change in the brain to accommodate such faculties, is not as yet fully determined, but this advance most likely was marked by the expression in Genesis which reads: "And man became a living soul," and which in its spirit points toward evolution.

The development in the brain of centers of intellectual, moral, religious and other rational conceptions must have been extremely slow, but that the upbuilding went continuously on cannot be doubted, as evidences drawn from remotest antiquity support this view and show that isolated peoples shared in this spontaneous evolution. Among ancient nations best known to modern life the Greeks seem to have attained the most finished outshowings in mind, heart, soul, science, intellect and work, this through causes operating through many centuries and yielding symmetrical and superior results in

1. *Evolution its Nature, its Evidences and its Relation to Religious Thought*: Joseph LeConte, Appleton & Co., 1896.

every field of endeavor—art, literature, philosophy, oratory, medicine, law, architecture, poetry, the drama all evidencing the continuing high degree of Greek mental attainment in this type of national intellect, as before mentioned.

It is well known that among aborigines the rôles or functions of priest and physician are joined in one person but with civilized nations divorcement of this relationship took place many centuries ago. That this outward and visible fact was preceded by inward invisible change in brain growth and quality, and by means of which the change was strictly conditioned, admits of no reasonable doubt, the increasing outward expression as time went on being the measure of the definite anatomic, physiologic and psychic cerebral alteration effected. The point or place in the brain where this primitive function had its seat and where final differentiation took place may not be so easy of exact location as are the root centers of the special senses—sight, hearing, smell, touch, taste—for these are primary in their nature, the others becoming defined and featured as human mentality slowly rose in the course of intellectual and moral development. It is fully in accord with other observations in nature that these changes were determined and took place under the laws that govern man's being and growth, were effected by nervous, vascular and nutritional influences in the area concerned, and were structural, stable and inheritable in character, duly passing in descent from generation to generation.

"Physician, heal thyself!" was the counsel given by Luke only in his gospel and which came from earlier Greek philosophy supposedly through the Galilean teacher; and it is of im-

portance in the effort to reach an understanding of the workings of the medical mind in those days especially when considered in connection with the further admonition "Prove all things hold fast to that which is good," for both were taken to heart by the early leaders of the profession, becoming an ingrained part of creed and work, and furnish a clew to their later course and attitude as devoted followers of science in its many branches.

The price demanded by nature for the perfect working of organ or part is normal exercise, as only thus can any organ of special sense, muscle or nerve center do its appointed work and efficiently fulfill its destined function. When in earlier ages one person stood for both priest and physician and the impulses thus developed were motivated from a single center in his brain, the causes that led to ultimate differentiation of those functions are of profound interest to physicians, and it is believed that natural law as observed in daily working affords a sufficient explanation of this momentous change and conveys both lesson and warning to later ages. Again, Luke the Physician will be resorted to for light as afforded by his story of the master, who, departing for a lengthened absence in foreign parts, gave to each of his servants a sum of money (termed pounds or talents) for investment or productive use. On his return an accounting was held by him and the unslothful servant who was found to have increased the loan tenfold was highly commended and rewarded, while another one who laid away the fund in a napkin was as strongly condemned, thus throwing light on the ruling spirit in merely business ethics and transactions.

But it is the law of nature that moral faculty or physical function unused or wrongfully employed tends to wither or decay, and the question is whether the medical profession has been faithful to the trust or talent committed to its keeping through cerebral change of a striking sort! It is true that for many centuries scientific medicine was clogged and confused by superstitions, dogmas, futile traditions and false doctrines, but eventually the hard-fought battle for light, truth, freedom and science was won, and in the accounting of its gains and triumphs in the struggle for the betterment of humanity there is now none to stand before it. History shows that it has intelligently faced, fought and conquered pandemics that yearly claimed their myriads of human victims and before which organized religion in all its great divisions bowed as if to the divine will without questioning or resistance, while scientific medicine, ever seeking new light, drawing knowledge from every source, exercising every power of the mind through reason, observation, experience and research, has won such intellectual and material victories that dark places became as an open book and mankind is being saved and the world made new by its ceaseless labors. When all men's motives to action are cast into the crucible the test by fire will not be shunned by physicians for their most devoted work is directed toward the removal of the causes of all diseases, thus unselfishly striving to bring about as soon as may be a better world for better people when preventable ills will be unknown. What other profession of like antiquity is engaged in equally good work in this direction?

It is quite safe to say as a result of such painstaking diligence, and the fullest exercise of the brain powers bestowed, by keeping closely in touch and sympathy with the best thought of the times and the mental progress of the world, that the value of the medical profession to the human race is to-day more than tenfold what it was a century or less ago, and the promise for the future is even yet more favorable provided that it shall remain true to the moral and scientific trust long ago given into its keeping, for then it will have fully earned the expressive sanction and reward:

“Well done, thou good servant: because thou hast been faithful in a very little, have thou rule over ten cities.”

Not far from the middle of one of the great divisions of the ocean there is a point where movement is almost unknown although deep currents and tides in the sea sweep in all directions around it, carrying fertility to the continents on its border, softening climates, modifying weather conditions, equalizing temperatures and safeguarding human welfare in many ways; but at the point mentioned the ocean gathers together its wreckage and debris, seaweed and derelicts to stagnate and decay, the hindrance to progress offered by these dead masses being serious and positively known to marine navigation. Seafaring men and scientists know this locality as the Sargasso sea, and it may well be conceived that a similar phenomenon exists in the great ocean of human consciousness, a center of stagnant intelligence where is collected much that is an obstacle to useful service and forward motion for mankind, as, ancient superstitions, outworn dogmas, obsolete notions, shipwrecked

doctrines, inept traditions and the like; and the mariners of medicine, if they value their scientific birthright and professional estate, must watchfully steer clear of such an entanglement for out of such a snare the profession was delivered only after centuries of continuous and conscientious struggle.

In an earlier place in this series the opinion was ventured that the special distinction of Luke the Physician, as a medical man, lay in the probability that he was a leader in the work of bringing together medical science and pious faith in natural reasonable relationship although only what may be held to be justifiable inferences can be offered in its support; but the concrete comprehensive quality of his Greek nature favors this view and the ultimate separation of sacerdotal ecclesiasticism or dogmatic theology and scientific medicine was a probable outcome of the work of his mind and others of like cast and complexion.

In considering the build and functioning of the brain,

“Probably the most important subject from a clinical and scientific standpoint, . . . is the question of cerebral localization—i. e., that certain known areas of the brain preside over certain definite functions. . . . Although there is still some difference of opinion among investigators as to the absolute limits of certain localizable areas, it is settled beyond dispute that there are fixed areas presiding over motion, language, and sight, and a strong presumption in favor of the localization of the various forms of common sensation, . . . and of the higher intellectual faculties. In the cerebral cortex there are localized areas governing . . . the higher mental faculties . . . lying on each side of the fissure of Rolando, between the precentral and intraparietal fissures” (pp. 448-9).²

2. Gordinier, H. C.: *The Gross and Minute Anatomy of the Central Nervous System*, 1899.

Haeckel discusses a "specific human-mind element or, as it is usually expressed, a 'divine spark'" by which the mind of man is said to be distinguished from that of all other animals, and says,

"it must itself be a thing capable of evolution, and has actually developed progressively in the course of human history (p. 453). . . . Just as the motive force of our flesh is involved in the muscular form-element, so is the thinking force of our spirit involved in the form-element of the brain. Our spiritual forces are as much functions of this part of the body, as every force is a function of a material body. We know of no matter which does not possess force, and, conversely, of no forces that are not connected with matter." (p. 457.)³

Mention was made elsewhere that in early times the brain as the seat of intellect or reason was little thought of in connection with religious faith or theological doctrine, and in support of this view a recent writer⁴ says:

"The actual personality of the individual in life consisted . . . in the visible body, and the invisible intelligence the seat of the last being considered the "heart" or the "belly," which indeed furnished the chief designations for the intelligence." (p. 55.)

In no other particular perhaps has the change in manner of thought and in the elements of knowledge been made more clearly apparent, scientific medicine steadily moving toward the solution of unknown problems concerning human welfare and its basis in or relation to brain growth, doctrinal theology yet standing still, as of old.

"When we come to . . . survey Luke's peculiar material, we find that it presents incident after inci-

3. Appleton's Scientific Library: The Evolution of Man, ii, 1896.

4. Breasted, James H.: Development of Religion and Thought in Ancient Egypt, 1912.

dent and saying after saying which set forth from varying points of view the broad and tender sympathy of Jesus. . . . We cannot doubt that Luke, who was little interested in the miraculous element . . . was profoundly moved by what he learned of the depth and universality of the Master's sympathy."⁵ (pp. 46, 47.)

The power which ordained cerebral differentiation and mental independence to the healing profession seems at present beyond human ken but undoubtedly the change came about in response to a demand that grew out of the instinctive elemental needs of the race, and which has been confirmed by physiologic exercise and established by psychic use, and whether the seat of such faculty is in gyrus, cortex, sulcus or fornix is of secondary importance, for it is doubtless true that the evolutionary development of the brain is still going on and must so continue until points have been reached and powers conferred that shall far transcend any limitations now known.

There is much of likelihood in the view just quoted that Luke took little interest in reputed miraculous healings, regarding them, if genuine, from the standpoint of the medical scientist, recognizing their psychologic bearing and natural relationship to physical conditions of the brain, and it is reasonable to hold that his Greek upbringing had much to do with this attitude. The poverty of known fact as to the beginnings of Christianity and concerning the first generation of its advocates and adherents should forbid dogmatic assertion from any source whatever, for the error of its supporters would seem to lie in this direction. As pious faith has a proper seat in the cerebrum as

5. Jesus : Gilbert, George H., McMillan Co. 1912.

legitimate as any other phase of understanding—even though it would often appear to be napped in form and rudimentary in expression—it is conceivable that vision, enthusiasm, rapture, ecstasy, etc., attesting such form of emotion, are a part of nature's plan for brain development and mental upbuilding, provided always that circulatory and other factors are ever within physiologic limit, as, otherwise, that way danger lies in delusion, mania, insanity, so that right reason and sane judgment must govern in the case of religious emotion as in all other mental manifestations. In this respect Luke seems to have held up the mirror to the psychology of his times as a physician, rather than as a religious doctrinaire, ruling his own spirit as a minister of the word, which is much more than can be truthfully said of most of the apostles.

In discussing a certain form of mental or moral instability, Huxley⁶ observes:

"It is hard . . . to say so, but it is exactly the honesty and sincerity of the man which are his undoing as a witness to the miraculous. He himself makes it quite obvious that when his profound piety comes on the stage, his good sense and even his perception of right and wrong make their exit." (p. 170.) And he further says of scientific fact: "It is this rational ground of belief which writers . . . no less than Paul . . . so little dream of offering that they would regard the demand for it as a kind of blasphemy." (p. 191.)

As the tempter has a snare for all it is well worth considering whether the choice made by the early church of a theology rather than a religion was not a fall into temptation the sad consequences of which have been measured in

6. Science and Christian Tradition: D. Appleton & Co., 1897.

large part by the sweat, the tears, the blood of near half a hundred human generations—a creed or creeds which fostered the passions that for many centuries bred suspicion, contention, hatred and mutual slaughter among the races and nations known to Christianity. All of this in disregard of the spirit of the gospel declared by Luke and which, if fulfilled, would bring upon earth peace and health and weal to men of good will, good work and good faith—a religion worthy alike of its prophet, its apostle, and of a sane mankind as well.

It can scarcely be doubted that from out of what is termed Christianity something much better than is now known will appear as the brain of the race proceeds in development of power and differentiation of function, that the foibles of pious imagination will not much longer prevail over the facts of practical intelligence as demonstrated by medical science—when the divine sanity and exalted humanity which mark the message of the Great Physician and the Greek Physician shall have replaced in the consciousness of mankind the ancient dogmas, discredited doctrines and irrational theology coming from barbarous ages which have weighed with such crushing effect on the fortunes and souls of men.

Odd Fellows' Building.

